## WHAT IS CLAIMED IS:

1. An endovascular graft comprising: one or more scaffold structures;

5

a biocompatible, high tensile strength, abrasion resistant, highly durable thin-walled graft material affixed to the one or more scaffold structures, the graft material including spider dragline silk; and

10

15

at least one connector for connecting the graft material to the one or more scaffold structures.

- The endovascular graft according to Claim 1, wherein the one or more scaffold structures comprises a plurality of first stents, a second stent and a third stent.
  - 3. The endovascular graft according to Claim 2, wherein the graft material is affixed to an outer portion of the plurality of first stents, the second stent and the third stent.

20

4. The endovascular graft according to Claim 1, wherein the graft material comprises a plurality of crimps between the one or more scaffold structures.

25

- 5. The endovascular graft according to Claim 1, wherein the graft material is woven.
- 6. The endovascular graft according to Claim 1, wherein the graft material is knitted.

30

7. The endovascular graft according to Claim 1, wherein the graft material is braided.

8. The endovascular graft according to Claim 1, wherein the at least one connector comprises sutures.